U.S. Department
of Transportation
**Research and
Special Programs
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

JUN 3 0 2003

Mr. Dave Slone
V.P. Technical Operations
Blue Rhino Corporation
104 Cambridge Plaza Dr.
Winston-Salem, NC 27104

Ref. No. 02-0160

Dear Mr. Slone:

This is in response to your letter requesting clarification of the Hazardous Materials Regulations (HMR;49 CFR Parts 171-180) as they pertain to the requalification of DOT specification cylinders. Specifically, you ask if the requirement to increase the test pressure by 10% or 100 psi, following an system apparatus failure applies to the following examples.

I apologize for the delay in responding and hope it has not caused any inconvenience. Your scenarios and questions are presented and answered in numerical sequence.

Scenario 1:

The retest pressure of a DOT specification 4BA240 cylinder undergoing a water jacket hydrostatic test is 480 psi, the minimum prescribed test pressure of the cylinder. The test operator attempts a system check prior to performing the test at 90% of test pressure and the system malfunctions.

Q1. After correcting the test system problems, at what corrected or increased pressure should the retest be performed - 432 psi plus 10% = 475.2 psi or 480 psi + 10% = 528psi?

A1. In a final rule published in the Federal Register on August 8, 2002 [67 FR 51626; HM 220D] and corrections to the final rule [67 FR 61287; 9/30/02], the provisions in § 173.34(c)(4)(v) were re-designated to § 180.205(g). As specified in § 180.205(g), a second retest is authorized at a pressure increased by 10% or 100 psi, whichever is less when the system apparatus fails to hold pressure after test pressure has been reached. Accordingly, in your first scenario the system apparatus malfunctions during a system check at 90% of test pressure and not at the minimum specified test pressure of 480 psi. Therefore, the provisions in § 180.205(g) do not apply to the first scenario and the test must be performed at the minimum test pressure of 480 psi, 2 times the service pressure as specified in § 180.209(a)(1), Table 1.

020160

173.34(e)(4)(v)

Scenario 2:

Continuing with the above scenario, the test system has been repaired and an attempt is made to test the cylinder at the corrected/increased retest pressure. The test system fails a second time at or below the corrected retest pressure.

Q2 (a) May the test be repeated a 3rd time? If so, what pressure should the cylinders be retested?

(b) How many times may the retest pressure be continually increased due to testing system failures?

(c) Is there ever a case where this test may be performed at pressures above 528 psi?

A2 (a) As stated in response A1, if the test is conducted at a pressure above 90% of test pressure and the system fails, only one second retest may be repeated at a pressure increased by 10% or 100 psig, whichever is less.

(b) The HMR permits only one repeat test in the case of malfunctioning test equipment.

(c) See response A2(b). The HMR authorizes only one repeat test.

I hope this answers your inquiry. If you need additional assistance, do not hesitate to contact this office.

Sincerely,

Delmer F. Billings
Chief, Standards Development
Office of Hazardous Materials Standards

104 Cambridge Plaza Dr., Winston-Salem, NC 27104
Phone: 336-659-6959
Fax: 336 659-6750
dslone@bluerhino.com

Blue Rhino Corporation

Webb
§173.34(e)(4)(v)
Cylinders
02-0160

Fax

To:	Mr. Edward T. Mazzullo, Director, Office of Hazardous Materials Standards Research & Special Programs Administration U.S. Department of Transportation	**From:**	Dave Slone, VP, Technical Operations
Fax:	202 366-3012	**Pages:**	2
Phone:		**Date:**	6/4/2002
Re:	Request for Formal Interpretation	**CC:**	Bill Womble, Jr. (fax) 336 733-8318

Dear Mr. Mazzullo,

Blue Rhino Corporation requests a formal interpretation of Title 49, CFR, Part 173, Section 173.34, paragraph (e) (4)(v) (page #430 of the 10-1-01 edition) pertaining to test pressures required for retesting DOT 4BA-240 cylinders previously used in LP-Gas service. This interpretation is necessary to remove confusion that exists within the LP-Gas industry related to what pressure should be used for water jacket hydrostatic pressure retests in the event of test system failures.

Rationale: The current wording of this paragraph is ambiguous. It states that when a testing system check is being performed at or below 90% of the specified test pressure and a system malfunction occurs, *"the test may be repeated at a pressure increased by 10 percent or 100 psig, whichever is less"*, yet it does not stipulate to what reference pressure the increase of 10 percent in pressure is related – the testing system check pressure or the minimum specified retest pressure listed in the *Retest And Inspection Of Cylinders* table provided in this same paragraph.

The following scenarios and questions are submitted to show the existing ambiguity and our reasons for requesting clarification and interpretation:

Example Scenario #1 – The retest pressure of a 4BA-240 cylinder undergoing a water jacket hydrostatic test is 480 psi (2 times working pressure of 240psi). The operator attempts a system check at 90% (432 psi) and the system malfunctions.

Question #1 - After correcting testing system problems, *what corrected/increased pressure should now be used for the retest – 432psi + 10% = 475.2psi or 480psi +10% = 528psi?*

Example Scenario #2 – Continuing on with the above example, the testing system has been repaired and an attempt is made to test the cylinder at the corrected/increased retest pressure. The testing system fails a second time at or below the corrected/increased retest pressure.

Questions #3, #4, #5 and #6 *May the test be repeated a 3rd time? If so, what should the new corrected/increased retest pressure? How many times may the retest pressure be continually increased due to testing system failures? Is there ever a case where this test may be performed at pressures above 528psi?*

June 4, 2002

Please contact me at (336) 659-6958 for any questions or if any additional information is needed.

Sincerely,

Dave Slone

VP, Technical Operations

Blue Rhino Corporation